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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,556	07/17/2000	Douglas P. Hart	MIT-04488	8301

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 10/09/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/617,556

Applicant(s)
Hart et al

Examiner
Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 5, 2002
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-20, 22, and 24 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-20, 22, and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Terminal Disclaimer

2. The terminal disclaimer filed on Aug 5, 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U. S. Patent No. 6,105,968 has been reviewed and is NOT accepted.

The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because it is directed to a particular claim or claims, which is not acceptable, since "the disclaimer must be of a terminal portion of the term of the entire [patent or] patent to be granted." See MPEP § 1490.

Claim Rejections - 35 U.S.C. § 112

3. Claims 1-9, 12-20, 22 & 24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 12 & 22 recite the limitation "circumferentially located textured features". While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947).

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On page 4 of the amendment filed Aug 5, 2002, the term "circumferentially located" is defined as: toward the outer edge of the contact surface and in a manner whereby the textured features are out of the plane of the contact surface (e.g. perpendicular) as opposed to being placed radially (i.e. in the plane of the contact surface. However, the accepted meaning of the term "circumferentially located" is: positioned about the surface of a figure or object.

Claim Rejections - 35 U.S.C. § 102

4. Claims 1, 2, 5-9, 12, 13, 16-20 & 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Dahll, US 5,195,757. Fig. 2 shows a seal 10 comprising: a mounting ring 18 attached to a seal ring 14. Figs. 1-3 show that seal ring 14 includes a contact surface 26 comprising: an inner peripheral edge 30; a curved and raised outer peripheral edge 28; and circumferentially located protrusions 36 (see Fig. 3) interior to the outer peripheral edge 28. Figs. 1-3 show that the protrusions 12 are equidistant, identical, of unitary construction and formed of elastomeric material (see also col. 3, line 25). Fig. 1 shows that the contact surface 26 constitutes a first surface which forms a seal with a second surface (the outer surface of shaft 12) when the second surface rotates relative to the first surface.

5. Claims 1-9, 22 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Zitting, US 4,577,874. Figs. 2 & 9 show a seal 10 comprising a mounting ring 12 attached to an elastomeric (col. 4, liner 12) seal ring 14/130. The seal ring 14/130 comprises a first/contact

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surface 39, 132 comprising: an inner peripheral edge; a curved outer peripheral edge; and circumferentially located textured features 134, 136, 138 positioned interior to the outer peripheral surface. The textured features comprise cylindrical, identically shaped, equidistant protrusions 134 & 136 having a recess 138. Fig. 2 shows a second surface 49 in contact with the first/contact surface. In col. 4, lines 54-59, Zitting discloses that the second surface oscillates.

6. Claims 1, 2, 4-7, 9, 12, 13, 15-18 & 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Blackman et al, US 5,452,771. Fig. 2 shows a seal comprising a mounting ring 43 attached to an seal ring 30. Fig. 4B shows the seal ring 130 comprises a contact surface comprising: an inner peripheral edge; a raised curved outer peripheral edge; and circumferentially located textured features 132 positioned interior to the outer peripheral surface. The textured features comprise cylindrical, identically shaped, equidistant protrusions 132.

Claim Rejections - 35 U.S.C. § 103

7. Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zitting. Zitting shows a seal comprising all the limitations of the claims but does not expressly disclose the outer peripheral edge as raised. However, applicant has not disclosed any improvement in the sealing function of a seal by raising the outer peripheral edge. Therefore, it would have been obvious to modify the seal of Zitting by raising the outer peripheral edge since such a modification would have involved a mere change in the shape of the outer peripheral edge. A change in shape

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is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 105 USPQ 237 (CCPA 1955).

Response to Arguments

8. Applicant's arguments filed Aug 5, 2002 have been fully considered but they are not persuasive.

a. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a seal biased against a relatively flat surface) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

b. With regard to Dahll, applicant argues that the protrusions 36 extend "from one end of the contact surface to the opposite end of the contact surface." However, Fig. 2 clearly shows that each protrusions 36 **do not** extend from one end 28 of the contact surface 26 to the opposite end 30 of the contact surface 26.

c. With regard to Dahll, applicant argues that the protrusions 36 are not circumferentially located. However Figs. 1 & 2 clearly show the protrusions 36 positioned about the surface 26 of the seal ring 14.

d. With regard to Zitting, applicant argues that protrusions 134 and 136 are not protrusions from a contact surface because they are in fact the contact surface. It is true the

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protrusions 134 and 136 form part of the contact surface but they are not the only parts of apex 132 that make contact with a second surface as clearly shown in Figs. 3 & 4. Applicant's argument is further weakened by the fact that his own Fig. 7 **clearly fails to show** contact surface 36 fully contacting the surface of bushing 50. Note in Fig. 7 the spacing/gap between inner peripheral edge 34 and bushing 50. See also the spacing/gap between bushing 50 and the portion of contact surface 36 indicated by the lead line for that numeral.

e. Applicant argues that Blackman fails to show the claimed invention because:

i. *The mounting ring 43 is disclosed as a seal ring.* However, there are no limitations associated with the mounting ring of the claims that are not also shown in Blackman's ring 43.

ii. *The seal ring 130 is not described in the specification.* However the drawings clearly show that seal ring 130 of Fig. 4B is an alternative embodiment of seal ring 30 of Fig. 4A and so it is clear that seal ring 130 can be used in place of seal ring 30 in Figs. 1-4.

iii. *Analogous element 32 is not a protrusion.* True, core 32 is not a protrusion but it is false to characterize core 32 as analogous to protrusions 132. Fig. 4B clearly shows that the structures indicated by the lead lines for reference numeral 132 are protrusions. This is so regardless of what numeral 32 is disclosed as indicating.

iv. *Ring 30 (and by extension ring 130) is not disclosed a seal ring.* However, the recitation of the intended use (e.g. sealing) of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the

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claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

f. Applicant argues that the 103 rejection above is without merit because a prima facie case of obviousness has not been made. This is so the applicant argues because no evidence has been provided showing why it would have been obvious to modify Zitting in such a way to make obvious the claimed invention. However, the *structural difference* between Zitting and the **claimed** invention is not disclosed (or even argued) as solving any particular problem or providing any particular utility and so it is therefore correct to assume that this difference is a mere design choice and thus does not amount to grounds for patentably over the cited prior art. Thus a prima facie case of obviousness has been made per the legal precedent cited.

Double Patenting

9. Claim 22 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,105,968. Although the conflicting claims are not identical, they are not patentably distinct from each other because a seal assembly comprising every limitation in the instant claim is already covered by the patented claims.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DeHart discloses in col. 6, lines 57+, a flat annular face seal with a contact surface having circumferentially located protrusions. Otto shows in Fig. 8, a flat annular face seal with a contact surface having circumferentially located protrusions. Vossieck, Workman, Grorich, Ehrmann and Stein each show a seal.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached Tuesday through Friday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 (before final), (703) 872-9327 (after final) and (703) 872-9325 (customer service).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



**GREGORY J. BINDA
PRIMARY EXAMINER**